

REMARKS

Claims 102-143, 156-189, and 193-204 are pending in the subject application. Claims 129, 160, 176, 184, and 195 have been withdrawn in response to a restriction requirement. Claims 144-155 and 190-192 have been canceled. In the present Office Action, claims 126, 128, 130-143, 157, 159, 161-174, 183, 185-189, 194, and 196-204 stand rejected under 35 U.S.C. § 112, second paragraph, as assertedly being indefinite. Claims 102-124, 126-128, 130-142, 156-159, 161-173, 175, 178-183, 186-189, 193, 194, and 197-204 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by EP 1 127 495 ("EP '495"). Claims 102-128, 130-143, 156, 157, 159, and 161-174 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by EP 0 565 260 ("EP '260"). Claims 102-128, 130-143, 156-159, 161-175, 177-183, 185-189, 193, 194, and 196-200 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by U.S. Patent No. 6,244,528 to Wallis et al. ("Wallis"). Claims 102-128, 130-143, 156-159, and 161-174 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by any one of U.S. Patent No. 3,639,129 to Mustakas et al ("Mustakas"), GB 1400470 ("GB '470"), U.S. Patent No. 4,902,526 to Sudo et al. ("Sudo"), or JP 60-141247 ("JP '247"). Claims 175, 178-183, 186-189, 193, 194, and 196-200 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by WO 2001/64055 ("WO '055"). Claims 201-204 stand rejected under 35 U.S.C. § 103(a) as assertedly being unpatentable over the following individual references: Wallis, Mustakas, and WO '055.

Claims 102-110 and 201-202 have been amended to include the element wherein the soya fiber particulate comprises fermented soya fiber particles. Claims 175 and 203-204 have been amended to include the element wherein the grain fiber particulate comprises fermented grain fiber particles. Claim 156 has been amended to include fermenting the soya fiber particulate. Claim 193 has been amended to include fermenting the soya fiber particulate. Support for these amendments may be found at paragraph [0058] of the specification as published. Claims 102, 125, 143, and 174 have been amended to indicate that the soya is a dehulled soya. Support for these amendments may be found throughout the specification as published, for example at paragraphs [0019], [0043], [0046], [0049], and [0052], as well as other paragraphs and

the Examples. Claims 102 and 175 have been amended to include the element wherein the soya fiber particulate and the grain fiber particulate, respectively, has been heat treated. Claims 156 and 193 have been amended to include heat treating the soya fiber particulate and the grain fiber particulate, respectively. Support for these amendments may be found at paragraphs [0055] and [0063] of the specification as published. Claims 102, 175, and 203-204 have been amended to correct minor typographical or grammatical errors. No new subject matter was added by these amendments.

New claims 205-208 have been added. Support for the subject matter of new claims 205-208 may be found, for example, in the specification as published at paragraphs [0070] and [0082].

Rejection under 35 U.S.C. § 112, Second Paragraph

Claims 126, 128, 130-143, 157, 159, 161-174, 183, 185-189, 194, and 196-204 stand rejected under 35 U.S.C. § 112, second paragraph, as assertedly being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner states that the recited claims are indefinite in that it is not clear what is encompassed by the terminology “simulated meat product” and “simulated milk product.” The Examiner asserts that the definitions at paragraphs [0029] and [0030] show examples of simulated milk or meat products and not specific definitions regarding the same.

Applicant respectfully disagrees with the Examiner that the terms “simulated meat product” and “simulated milk products” are indefinite. The terms are well known in the art and self defining in that a simulated meat product is a product that simulates meat and a simulated milk product is a product that simulates milk. This is further supported in the definitions of paragraphs [0029] and [0030]. “Simulated meat product” is further defined in paragraph [0029] as a “meat alternative” or “meat analog”. In view of this definition and the specification, one having ordinary skill in the art would understand the term “simulated meat product” to include a product which has properties similar to a meat product but does not contain meat and can be used as an alternative or analog to a meat product, for example, soy burger, soy bologna, soy frankfurter, etc.

Likewise, “simulated milk product” is defined in paragraph [0030] as a “milk alternative” or “milk analog”. One having ordinary skill in the art would understand the term “simulated milk product” to include a product which has properties similar to a milk product but does not contain milk and can be used as an alternative or analog to a milk product, for example, a soymilk product, soy sour cream, soy ice cream, etc.

Applicant respectfully asserts that, based on the disclosure in the subject application and the knowledge of one having ordinary skill in the art, the terms “simulated meat product” and “simulated milk product” are not unclear and, therefore, the claims are not indefinite under the second paragraph of 35 U.S.C. § 112. Applicant respectfully requests that the rejection of the claims under 35 U.S.C. § 112 be withdrawn.

Rejections under 35 U.S.C. § 102(b)

**EP ‘495**

Claims 102-124, 126-128, 130-142, 156-159, 161-173, 175, 178-183, 186-189, 193, 194, and 197-204 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by EP 1 127 495 (“EP ‘495”). Applicant traverses this rejection for the following reasons.

Independent claim 102 of the subject application is directed towards a “soya fiber particulate comprising fermented soya particles produced from dehulled soya and having a particle size in a range of about 0.01 microns to about 100 microns, wherein at least about 50% to about 100% of the fermented soya particles of said soya fiber particulate have a size range of about 0.01 microns to about 35 microns and wherein said soya fiber particulate has been heat treated, said soya fiber particulates having open portions therein such that water or a water based liquid is allowed into intracellular spaces of said soya fiber particulate.” Independent claim 175 of the subject application is directed toward a “grain fiber particulate comprising fermented grain particles produced from a grain and having a particle size in a range of about 0.01 microns to about 100 microns, wherein at least about 50% to about 100% of the fermented grain particles of said grain fiber particulate have a size range of about 0.01 microns to about 35 microns and wherein said soya fiber particulate has been heat

treated, said grain fiber particulates having open portions therein such that water or a water based liquid is allowed into intracellular spaces of said grain fiber particulate.”

For a reference to be anticipatory under 35 U.S.C. § 102, it is axiomatic that the reference must teach, either explicitly or inherently, each and every element of the invention as set forth by the claims.

EP ‘495 focuses on the grinding of soybean, including soybean hulls, as opposed to the fermented soya particles produced from dehulled soya (claim 102) or fermented grain particles produced from a grain (claim 175) in the present disclosure. Further, EP ‘495 ground soybean hulls are not heat treated, such as, by jet cooking, as set forth in claims 102, 175, and 201-204. Heat treating the soya fiber particulate and grain fiber particulates of the present disclosure results in a soya fiber particulate and a grain fiber particulate that will necessarily have a different structure than the ground soybean hulls of EP ‘495. Therefore, a rejection under anticipation is improper and Applicant respectfully requests its withdrawal.

**EP ‘260**

Claims 102-128, 130-143, 156, 157, 159, and 161-174 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by EP 0 565 260 (“EP ‘260”). Applicant traverses this rejection for the following reasons.

EP ‘260 discloses a ground soy product used in a variety of food products including milk and icings. The Examiner also states that it is expected that the product would have the stability as recited in the instant claims due to the similarity in processing and the dry nature of the product.

The particles of EP ‘260 are never isolated. In addition, the EP ‘260 particles are neither heat treated nor fermented. The soya fiber particulates of the subject application comprise fermented soya particles produced from dehulled soya, wherein the soya fiber particulate has been heat treated. Since the EP ‘260 particles lack both heat treatment and fermentation, they are different than the soya fiber particulates recited in claim 102 of the subject application. EP ‘260 does not disclose each and every element of the soya fiber particulate of claim 102. Therefore anticipation has not been shown and Applicant respectfully requests withdrawal of the rejection under 35 U.S.C. § 102(b).

## **Wallis**

Claims 102-128, 130-143, 156-159, 161-175, 177-183, 185-189, 193, 194, and 196-200 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by U.S. Patent No. 6,244,528 to Wallis et al. ("Wallis"). Applicant traverses this rejection for the following reasons.

Wallis discloses a ground soybean product having a particle size between 5 and 25 microns wherein the product is used in a variety of food products including soymilk, tofu, and dairy analogs. The Examiner also states that it is expected that the product would have the stability as recited in the instant claims due to the similarity in processing and the dry nature of the product.

Applicant respectfully disagrees that the Wallis product would inherently have the same open portions as claimed in the soya fiber particulate of claim 102 and the grain fiber particulate of claim 175. Wallis does not disclose a soya fiber particulate comprising fermented soya particles as recited in claim 102 or a grain fiber particulate comprising fermented grain particles as recited in claim 175. In addition, with regards to independent claims 156 and 193, Wallis utilizes dry grinding which will result in a structurally different particulate than the soya fiber particulate produced by wet grinding a dehulled soya (claim 156) or the grain fiber particulate produced by wet grinding a grain (claim 193) as recited in the subject application. Anticipation of the recited claims has not been established by Wallis. Therefore, Applicant respectfully requests that the rejection under 35 U.S.C. § 102(b) be withdrawn.

## **Mustakas**

Claims 102-128, 130-143, 156-159, and 161-174 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by U.S. Patent No. 3,639,129 to Mustakas et al. ("Mustakas"). Applicant traverses this rejection for the following reasons.

The Examiner states that Mustakas discloses a ground soy product having a particle size between 5 and 40 microns wherein the product is employed in soymilk. The Examiner also states that it is expected that the product would have the stability as recited in the instant claims due to the similarity in processing and the dry nature of the product.

Applicant respectfully disagrees that the Mustakas product would inherently have the same open portions as claimed in the soya fiber particulate of claim 102. Mustakas does not disclose a soya fiber particulate comprising fermented soya particles, wherein the soya fiber particulate has been heat treated (as recited in claim 102). There is no mention or suggestion in Mustakas of fermentation of the soya particles. In addition, Mustakas teaches away from heat treatment of soya particulates. In particular, Mustakas states "heat treatments used in production of soy flours reduce the solid suspension properties and yield sandlike, hard particles." (Mustakas, column 1, lines 38-39). Thus, Mustakas fails to teach or suggest each and every element of independent claims 102. Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) over Mustakas be withdrawn.

**GB '470**

Claims 102-128, 130-143, 156-159, and 161-174 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by British Patent No. GB 1400470 ("GB '470"). Applicant traverses this rejection for the following reasons.

The Examiner states that GB '470 discloses a ground soybean product having a particle size between 2 and 10 microns wherein the product is employed in beverages. The Examiner also states that it is expected that the product would have the stability as recited in the instant claims due to the similarity in processing and the dry nature of the product.

Applicant respectfully disagrees that the product of GB '470 would inherently have the same open portions as claimed in the soya fiber particulate of claim 102. There is no indication that the GB '470 particulates would have the same characteristics as the soya fiber particulate of claim 102. Further, GB '470 does not disclose a soya fiber particulate comprising fermented soya particles, wherein the soya fiber particulate has been heat treated (as recited in claim 102). There is no mention or suggestion in GB '470 of fermentation of the soya particles. Thus, GB '470 fails to teach each and every element of independent claims 102. Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) over GB '470 be withdrawn.

**Sudo**

Claims 102-128, 130-143, 156-159, and 161-174 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by U.S. Patent No. 4,902,526 to Sudo et al. ("Sudo"). Applicant traverses this rejection for the following reasons.

The Examiner states that Sudo discloses a ground soybean product having a particle size below 50 microns wherein the product is employed in beverages. The Examiner also states that it is expected that the product would have the stability as recited in the instant claims due to the similarity in processing and the dry nature of the product.

Applicant respectfully disagrees that the Sudo product would inherently have the same open portions as claimed in the soya fiber particulate of claim 102. The process of Sudo soaks hulled soybeans in water for at least 12 hours before grinding (Sudo, claim 1, column 8, lines 1-3), whereas the soya fiber particulate of claim 102 is wet ground directly to the claimed particle size from dehulled soybeans. Further, Sudo does not disclose a soya fiber particulate comprising fermented soya particles, wherein the soya fiber particulate has been heat treated (as recited in claim 102). There is no mention or suggestion in Sudo of fermentation of the soya particles. Thus, Sudo fails to teach each and every element of independent claims 102. Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) over Sudo be withdrawn.

**JP '247**

Claims 102-128, 130-143, 156-159, and 161-174 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by Japanese Patent No. JP 60-141247 ("JP '247"). Applicant traverses this rejection for the following reasons.

The Examiner states that JP '247 discloses a ground soybean product having a particle size below 10 microns wherein the product is employed in food products. The Examiner also states that it is expected that the product would have the stability as recited in the instant claims due to the similarity in processing and the dry nature of the product.

Applicant respectfully disagrees that the product of JP '247 would inherently have the same open portions as claimed in the soya fiber particulate of claim 102. There is no indication that the JP '247 particulates would have the same

characteristics as the soya fiber particulate of claim 102. The process of JP '247 includes dry milling of the soy beans to a size of less than 20  $\mu\text{m}$  (JP '247, claim 1, page 253), whereas the soya fiber particulate of claim 102 is wet ground directly to the claimed particle size from dehulled soybeans. Indeed, JP '247 states that dry grinding is superior to wet grinding (JP '247, paragraph spanning pages 253-254), implying that the particle characteristics are different.

Further, JP '247 does not disclose a soya fiber particulate comprising fermented soya particles, wherein the soya fiber particulate has been heat treated (as recited in claim 102). There is no mention or suggestion in JP '247 of fermentation of the soya particles. Thus, JP '247 fails to teach each and every element of independent claims 102. Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) over JP '247 be withdrawn.

#### **WO '055**

Claims 175, 178-183, 186-189, 193, 194, and 196-200 stand rejected under 35 U.S.C. § 102(b) as assertedly being anticipated by PCT Publication No. WO 01/64055 ("WO '055"). Applicant traverses this rejection for the following reasons.

The Examiner states that WO '055 discloses a ground wheat product having a particle size between 18-25 microns wherein the product is employed in food products. The Examiner also states that it is expected that the product would have the stability as recited in the instant claims due to the similarity in processing and the dry nature of the product.

Applicant respectfully disagrees that the product of WO '055 would inherently have the same open portions as claimed in the grain particulate of claim 175. There is no indication that the WO '055 particulates would have the same characteristics as the grain particulate of claim 175. Further, there does not appear to be any disclosure in WO '055 of grain fiber particulates comprising fermented grain fiber particles, wherein the grain fiber particulate has been heat treated (as recited in claim 175). Thus, WO '055 does not disclose each and every element of claim 175. Applicants respectfully request that the rejection under 35 U.S.C. § 102(b) over WO '055 be withdrawn.



Rejection under 35 U.S.C. § 103(a)

Claims 201-204 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the following individual references: Wallis, Mustakas, and WO '055. Applicant respectfully traverses these rejections for the reasons set forth herein.

To establish a case for *prima facie* obviousness, three basic criteria must be met: a) there must be some suggestion or motivation to modify the reference or to combine the reference teachings; b) there must be a reasonable expectation of success; and c) the prior art reference(s) must teach or suggest all the claim limitations. MPEP 2143. Applicant submits that *prima facie* obviousness has not been established for at least the reasons that the prior art reference(s) do not teach or suggest all the claim limitations and, for certain references, there is no suggestion to modify the reference teachings.

As set forth herein, Wallis fails to teach or suggest a soya fiber particulate comprising fermented soya particles. Thus, the reference does not teach each and every element of the claim. *Prima facie* obviousness has not been established by Wallis with regard to claims 201-204.

As set forth herein, Mustakas fails to teach or suggest a soya fiber particulate comprising fermented soya particles, wherein the soya fiber particulate has been heat treated (as recited in claim 102). There is no mention or suggestion in Mustakas of fermentation of the soya particles. In addition, Mustakas teaches away from heat treatment of soya fiber particulate. In particular, Mustakas states "heat treatments used in production of soy flours reduce the solid suspension properties and yield sandlike, hard particles." (Mustakas, column 1, lines 38-39). Therefore, *prima facie* obviousness has not been established by Mustakas with regards to claims 201-204.

As set forth herein, WO '055 fails to teach or suggest a grain fiber particulate comprising fermented grain particles, wherein the grain fiber particulate has been heat treated (as recited in claim 175). There does not appear to be any heat treatment in WO '055 nor is there any indication that the corn particulates comprise fermented corn particles. Thus, WO '055 fails to teach or suggest every element of

claims 102 or 175. *Prima facie* obviousness has not been established by WO '055 with regards to claims 201-204.

Applicant has demonstrated that *prima facie* obviousness has not been established by Wallis, Mustakas, or WO '055. Withdrawal of the rejection of claims 201-204 under 35 U.S.C. § 103(a) is respectfully requested.

New Claims 205-208

New claims 205-206 recite that the soya fiber particulate has been heat treated by jet cooking. New claims 207-208 recite that the grain fiber particulate has been heat treated by jet cooking.

CONCLUSION

Applicants submit that claims 102-128, 130-143, 156-159, 161-175, 177-183, 185-189, 193, 194, and 196-208 of the subject application recite novel and non-obvious soya fiber particulates and grain fiber particulates. In view of the amendments and remarks presented above, Applicants respectfully submit that the subject application is in condition for allowance. Accordingly, reconsideration of the rejections and allowance of all pending claims is earnestly solicited.

If the undersigned can be of assistance to the Examiner in addressing issues to advance the application to allowance, please contact the undersigned at the number set forth below.

Respectfully submitted,

  
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